August 19, 2002

Quality Matters: The link between care and contraceptive use

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Word Count: 4,939

The Davao project comprises one of four field studies being undertaken by the Population Council under the Impact Studies Program designed to document the feasibility of improving quality of care and the effect of improved quality on women's reproductive behavior. This program is directed by Anrudh Jain and is funded by the Rockefeller Foundation, USAID, and the Population Council.

We wish to acknowledge the support of our partners the Provincial Health Offices of Davao del Norte and Compostela Valley, the Regional Health Office, and the Department of Health. We also wish to thank Heather Clark and Jacqueline Kim for their assistance. We thank the editors for constructive criticism and helpful suggestions.

An earlier version of this paper was presented at the 2001 annual meeting of the Population Association of America, March 28-30, 2001 in Washington, D.C.

Abstract

Context: There is very little empirical evidence on whether the quality of family planning care influences continued use of contraception, and if so, to what extent.

Methods: 1728 new family planning users who had sought services at 80 service delivery points across the provinces of Davao del Norte and Compostela Valley in the Philippines were interviewed. 1460 of them were followed up over 16 months later. Information is available on the care they received at the time they adopted family planning at the service delivery points and on their contraceptive status at the time of the second interview.

Results: The most important finding is that quality of care received at the time of adopting a contraceptive influences subsequent contraceptive use after controlling for a range of background characteristics. Furthermore, use increases montonically with good care; at low levels of care, the predicted probability of contraceptive use is 55 percent; at medium levels of care, use is 62 percent and 67 percent at high levels of care.

Conclusions: A focus on quality improvement will benefit both programs and users of programs.

Introduction

There is general agreement between various constituencies—health advocates, human rights activists, researchers, program managers, governments and donors—that quality of care is an important service delivery issue. Clients deserve good quality services and to be treated with dignity and respect while being served. From this human rights perspective there is little need to demonstrate the effect of improved quality on clients' reproductive behavior and health. However, since many family planning programs in the developing world have been justified and evaluated in terms of their contribution to fertility decline, an assessment of the effect of improved quality on some indicators of fertility becomes critical to sustain interest and allocate resources for quality improvements.

Based on theoretical insights and empirical evidence, it has been hypothesized that quality of care is an important determinant of contraceptive and reproductive behavior. Other important determinants include service availability, accessibility, cost, and the user's desire to regulate fertility. Individuals who are extremely motivated to control their fertility will do so even in the absence of services or if services were of poor quality. On the other hand, those who do not desire to control fertility will not do so even if services are accessible and are of good quality. Thus, improved quality is hypothesized to affect the contraceptive and reproductive behavior of those individuals who are ambivalent about their fertility intentions, or do not use services due to perceptions of poor quality, or have discontinued contraception due to poor quality services or mistreatment by providers. Improvements in quality of care can thus be expected to contribute to reductions in contraceptive discontinuation and unintended fertility.

Empirical evidence to test this hypothesis is limited. In this paper, we present results from a study with longitudinal data on the impact of quality of care on contraceptive use in two provinces in the Philippines. A panel of new users was constituted from attendees at family planning clinics and followed over time; the users' experiences allows us to test whether their contraceptive behavior was influenced by the care they received. The specific question we address is whether receiving good quality care results in higher contraceptive use, and if so, to what extent.

Background

Evidence from a variety of different settings suggests that services of good quality encourage contraceptive use, be it acceptance or continuation. Evidence to date is one of two types and the typology is largely based on the definition of quality, the design of the research, and the nature of data used. One set of empirical research has looked at links between different measures of access, availability, and readiness of family planning services on contraceptive behavior. The other set of analysis have used more focused definitions of quality, particularly those relating to interactions of

individuals with service providers and their effects on contraceptive use. Both these types of analyses are discussed in order below.

It appears that even residing in areas with good quality services tends to encourage contraceptive use. For example, a multivariate analysis using a linked Demographic and Health Survey (DHS) and Situation Analysis data set from Peru found that women who lived in high quality service environments were significantly more likely to be using contraception than those who lived in poor service quality environments. [1] However, the size of the effect of quality was small—ranging from a 16 percent increase to 23 percent—and the authors speculate that alternate measures of quality may have shown bigger effects. Other analyses which have linked family planning service availability and accessibility to contraceptive behavior of women who live in the vicinity of service centers also report similar findings. [2, 3] The analysis by Steele linked availability of family planning clinic (government and non-government), and the number of methods available at the community level with contraceptive adoption, continuation and switching. This study reported presence of a government clinic tended to increase the post-partum adoption of a method with lower failure rates, while availability of a pharmacy was associated with lower discontinuation due to side-effects or health concerns. The number of methods available in the community increased the likelihood of post-partum adoption of contraception but had an insignificant effect on switching behavior. Another analysis of the same data set reported similar findings of two specific dimensions of the service environment—access and readiness—on current contraceptive use.[4] Access was measured by distance, presence of a facility offering MCH/FP, presence of a CBD, and availability of pills, while readiness was an index of equipment and infrastructure. The presence of a CBD, availability of pills, and the readiness index all emerged as significant determinants of contraceptive use after controlling for several variables. Other analysts have reported that community perceptions of quality of the available facilities affects contraceptive use of the community.[5] In all these studies, the measure of quality used do not capture the essence of contact that an individual may have with the service delivery system as has been hypothesized in the literature.[6, 7, 8] In addition, quality is measured at the community level and not for individual respondents.

In contrast to this set of studies, other efforts have linked individuals' experiences with various dimensions of service quality received or perceived and their contraceptive status. For example, one of the earliest works which highlighted the importance of choice and contraceptive continuation was a panel study of 1,945 Indonesian women.[9] In this research, "choice granted" was the variable under study and was defined as the health worker giving a method which was identical to the user's own personal choice. The results indicate that women who reported being given the method they desired were significantly more likely to be using a contraceptive a year later than others, after controlling for

several relevant variables. The rate of discontinuation was 72 percent among those who had not been given their chosen method compared to 9 percent among those who had.

In addition to method choice, it appears that information could be a key determinant of contraceptive use as well. Evidence from three diverse settings—West Africa, China, and India—suggest that contraceptive discontinuation is lower among women who receive more counseling or information. In a follow up study of contraceptive discontinuation in Niger and The Gambia, researchers reported that approximately 30 percent of new family planning users discontinued use within the first eight months of acceptance, primarily due to side-effects, travel by either partner, spousal disapproval, and a desire for pregnancy. [10] Discontinuation was higher among women who reported that they had not been adequately counseled about side-effects: for example, in Niger, 37 percent of the women who reported inadequate counseling discontinued compared with 19 percent among those reported receiving adequate counseling. A similar situation was encountered in The Gambia as well, where 51 percent of those who felt they were not properly counseled discontinued compared to 14 percent of those who reported being well counseled. The methodological problem with this analysis is that it is not clear whether those who discontinued were also more likely to report not being adequately counseled. Since the respondents reported retrospectively on the information provided to them at initial adoption it is not possible to ascertain the accuracy of such reporting.

The Chinese study too reports higher discontinuation among those provided lesser information.[11] In this study Depo-Provera acceptors from four family planning clinics were followed up for over a year. Two clinics were part of a treatment where acceptors were given a lot of information regarding the mode of action of Depo-Provera, its hormonal effects, and potential side effects; the two other clinics were part of a control group where the acceptors were given the routine counseling without any information on side-effects unless the clients asked for it. Further, users in the treatment group also received ongoing counseling. The study compared the continuation rates between the two groups and found that those in the treatment group were four times more likely to continue with Depo-Provera than those in the control group. Though it is difficult to decipher whether the differences between the two groups was entirely due to enhanced information provision in the treatment group it lends some support to the hypothesis that information could be an important determinant of continuation. A smaller study of 136 IUD acceptors in an NGO clinic in India provides circumstantial evidence to suggest that providing information results in higher IUD continuation. [12]

The most rigorous analysis are from a panel study in Bangladesh where perceptions of good quality care was linked to contraceptive use.[13] The results indicate that those who perceived receiving good quality care from field workers were more likely to both adopt and continue contraception. 3,632 reproductive aged women who had been visited by a field worker were enquired about their

perceptions of care that family planning field-workers gave them.[#] The multivariate analysis concluded that women who reported receiving a higher level of care were 27 percent more likely to adopt contraception within the next 30 months than those who did not. Similar findings were reported on contraceptive continuation; 3,497 users of oral contraceptives, IUD, injectables, condoms and foam tablets were followed from month of initial acceptance until the time of method discontinuation, loss-to-follow-up, or the end of the observation period. Women who reported receiving moderate or high standards of care were 22 percent and 72 percent more likely, respectively, to continue use of any contraceptive method.

Thus, from this short overview of the available evidence, it can be seen that while there appears to be reasonable grounds to expect quality of care to influence contraceptive behavior, the research is clouded with methodological issues ranging from endogeneity, a lack of distinction between measures of readiness and quality of care[*], and the invariant nature of quality measured among individuals living in a community. These issues are not mutually exclusive and are often intertwined as can be seen from the discussion below.

First, the assertion of causality between quality and contraceptive or reproductive behavior would be more defensible if it could be demonstrated that quality received by the respondent preceded her decision to adopt or continue contraception. Typically both quality and contraceptive behavior are measured in surveys with retrospective reporting on both events that happened in the reference period. Measures of quality are available only for those respondents who report a contact with the health system while information on contraceptive status (users or non-users) is available for all. To complicate matters of memory lapse, it is often unclear from such data collection as to the precise timing of each event. Even if it were known that a user had received services of some quality preceding contraceptive behavior, it is unclear as to how far ago in the past it was—close to the time of contraception or much further in the past. These give rise to the problem of endogeneity.

The second problem relates to the definition and measurement of quality. As seen above, access, availability and readiness have been some of the typical measures used. Sometimes, perceptions of quality have been used to emphasize the rapport between provider and client, as was done in the Bangladesh study. Only in rare instances have specific and objective dimensions of quality of care, such as being provided choice or information been used. In order to completely reflect the quality that a user experiences it would be necessary to capture many more objective rather than subjective dimensions of the care received.

Third, quality measured at the community level by availability or readiness of services, reflects the service environment. It is therefore a community level measure which remains invariant across the women who are resident in the community.

The design adopted for the study presented here specifically addresses these methodological issues. Information on quality of care was collected for every woman who received services as she was enrolled into the panel. This information was collected at the first round of data collection after the client had received services and initiated the use of contraception. Information on her contraceptive status (using or not) was collected at the second round over 16 months after the first round of interviews. Furthermore, efforts were taken to reflect an entire range of quality dimensions that a user may have experienced.[**] It is also important to point out that these measures were of an objective nature in terms of recording the actual experience of various activities rather than the user's subjective evaluation of the experience.

Methodology

Data

Data for this paper come from two rounds of interviews with a panel of new family planning users. The panel was constituted from attendees at 80 service delivery points (SDPs) spread across the provinces of Davao del Norte and Compostela Valley in the Philippines. The SDPs consisted of 20 Rural Health Units (RHU) and 60 Barangay Health Stations (BHS).[+] All the existing RHUs in the provinces were included as were the three closest BHS to a RHU.

1728 new family planning users who had sought services at any of the SDPs between April and December 1997 were identified from clinic records.[Δ] They were interviewed for the first time between September 1997 and January 1998 at their residence. Over 80 percent of the respondents were interviewed within six months of receiving services. The purpose of this interview was to obtain information on the quality of care they had received at the time they initiated contraception, the method adopted, and some background information. They were subsequently re-interviewed and this second round of the survey was fielded between May and August, 1999. The purpose of this round was to collect information on the contraceptive and reproductive experiences of the panel respondents since the first interview. Thus, two measurements on the same respondent allow the analysis of the effect of quality received on subsequent contraceptive use.

These data were collected as part of an intervention study with a quasi-experimental design; the intervention comprised of training family planning service providers in 40 of the 80 study SDPs.[Φ] For the analysis presented in this paper, we do not use the quasi-experimental nature of the design and instead pool the data from both groups; in other words, we do not distinguish whether the respondent belonged to the experimental or control group.

Analysis

The analysis is presented in two steps. First, we review if those who were re-interviewed were significantly different from those who were not; the purpose of this analysis is to check for any selection bias in the resulting sample which may affect the dependent variable. Second, we test whether the quality of care received by the respondents at the time of contraceptive adoption influenced their subsequent contraceptive behavior.

The analysis begins with a comparison of those who were followed up and those who were not in terms of a range of characteristics chosen to reflect the respondents' social, economic, and demographic backgrounds. Chi-square and t-tests are used to check for statistical significance. This analysis tests if there is sample selection which may bias results. Socio-economic characteristics considered are the respondent's and her husband's education levels (measured in years), whether she and her husband work (both dichotomous), and an index of ownership of consumer durables [Γ] to reflect economic well-being; marital status, religion, and the respondent's and her husband's age (measured in years) reflect some basic demographic characteristics; finally, aspects such as number of living children (mean), the age of the youngest child, reproductive intention, and the method adopted reflect the context in which reproduction and contraception take place. We have used two specifications of reproductive intention—whether a woman wants to limit childbearing and whether she wants to not have children in the next two years; the second specification includes not only those who want to space for two years but also those who want to stop childbearing.

The second part of the analysis focuses on the effect of quality of care on contraceptive use. The dependent variable is use of contraception at the time of the second interview. We use this as a gross approximation of contraceptive continuation as all the respondents entered the panel as new contraceptive users; further, we do not take into account whether the woman had conceived in the interval between the two interviews. This definition includes use of any method and is not restricted to the same method that the respondent was using at the time of joining the panel.[Π] Stated differently it allows for contraceptive switching and does not consider discontinuing use of the first method as a failure. The rationale for not accounting conceptions is that those who received good care would by implication also have received information on how to use contraceptives effectively and also the most appropriate method for their fertility desires while the converse is true for recipients of poor care; hence, ignoring conceptions reduces the potential for confounding. We have used two alternate definitions of the dependent variable—any use of methods with the intention of delaying or limiting births; and the use of modern methods of contraception.

Quality of care is the independent variable of principal interest; it is composed of 24 different items which reflect 5 different aspects of the care giving process—the assessment of client needs, the choice offered to her, information given on various methods, whether the client was treated well, and whether she was linked to services in the future (refer to Appendix 1). These aspects of quality and the corresponding items have been selected as they represent a different and unique dimension of the process; they are based on theoretical [15] and programmatic insights as to what the care giving process should entail and are weighted equally as all are deemed to be of equal importance.[Ω] The combination of all five aspects proxies total quality and is defined by a variable with three categories—low, medium, and high—to differentiate between different levels of care. The medium level is defined as quality within half a standard deviation of the mean, and the low and high levels being on either side of this categorization.

In terms of the statistical tools, we employ bivariate and multivariate methods. We use bivariate methods to explore the association between quality of care and contraceptive use, both modern and all method use; cross-tabulations of each index of quality as well as total quality and contraceptive use are presented. Next, we use multivariate methods to test the hypothesis whether the quality of care received at initiation of contraception is a significant determinant of current use, net of a range of background factors. In this set of multivariate analyses, only one specification of the dependent variable—the use of modern contraception is used. Furthermore, the analysis also controls for design effects; in other words, as more than one respondent could have sought services at the same SDP, it is necessary to account for any clinic level factor which could be operating across a cluster of respondents. Logistic regression models are estimated as the dependent variable is dichotomous. All the independent variables are the same individual level variables used in the analysis of sample selection. To reiterate, all the independent variables reflect the respondent's situation at the first interview while the dependent variable—contraceptive use—is her status at the second interview.

Findings

Are those followed up similar to those who were not?

1460 of the 1728 respondents were interviewed during the second round of interviews. This implies a follow up rate of 85 percent; the two most common reasons for loss to follow-up were migration (77%) and inability to locate the house (10%).[Ψ] We analyzed if the respondents who were re-interviewed were significantly different from those who were not by statistical testing (Table 1). In

general it appears that older and economically better-off were significantly more likely to be re-interviewed indicating that perhaps younger respondents, in need of employment had migrated; in terms of specific socio-economic characteristics, those followed up compared to those who were not tended to be working, had husbands who were employed, were older (by 1.5 years), whose husbands were older (by 1.7 years), owned more consumer durables (0.3 index points), had more children (by 0.4), had an older last child (by 0.3 years), were more likely to limit childbearing, and use DMPA. There were no differences on all the other background variables such as the educational achievement of the respondent and her husband, marital status, religion, ever having conceived, or use of contraceptives other than Depo-Provera.

Despite the differences that exist on some of the variables, there does not seem to be any change in the composition of the respondents between those in Round 1 and those who were followed up in Round 2 (see columns 2 and 4 of Table 1). For example, the educational backgrounds of respondents (8.6 years in both rounds) and husbands remains the same (8.2 years in Round 1 and 8.3 in Round 2). No significant changes are seen in work status or ownership of consumer durables, or any of the demographic and reproductive behavior variables. Hence, we do not expect any systematic biasing of results due to the compositions of the samples.

Table 2 presents information current status and changes, if any, in the respondents' situation at the time of the second interview. At the time of the second interview, 74 percent of the women reported to be using a method of contraception which translates into 59 percent of modern method use.[⊥] Also, the proportion of women reporting a desire to limit childbearing has increased since the Round 1 interview which is to be expected as some women may have achieved their desired family sizes. In terms of economic changes, three in ten respondents reported that their household economic conditions had improved over the past year.

Does quality received affect contraceptive use?

Table 3 presents the distribution of the care that respondents reported receiving. In terms of the overall care they received, 36 percent of the respondents reported receiving high levels of care while 27 percent reported poor levels, and the rest an intermediate level. On average, respondents reported receiving 18.5 items out of the list of 25. When disaggregated to each of the 5 aspects of care, there are discernible differences between them; for example, while three-fifths of the respondents that all their needs were assessed, barely a tenth reported that they had all the information regarding their follow up visits.

Results from a cross-tabulation of quality and contraceptive use are encouraging; they indicate that being provided better care does indeed result in higher contraceptive use—be it modern or any method

(see Table 4). As each index of quality is composed of several elements, the data is presented for the highest and lowest levels of care to be achieved in the index; for example, all needs assessed refers to being asked about all 3 items which comprise the "Assessment of Needs" index; conversely, being asked none of the three is the lowest level of care.

There are two points to note in this table. First, on all the five indices, the effect of quality is in the direction postulated. Furthermore, modern contraceptive use is greater at the highest level of care than at the lowest level; for example, among those whose needs were fully assessed, 61 percent were using a modern contraceptive compared to 52 percent among those who did not have any need assessed. Second, on two of the five indices, there are significant differences in contraceptive use among those who got high quality care and those who did not. For example, 66 percent of those who received all the pieces of information were using a modern method; and they were significantly more likely to be using than those who got partial or no information.

Furthermore, this relationship holds when all five indices of quality are combined into a single one. There is a monotonic increase in modern contraceptive use as quality moves from low levels (53%), to medium (59%) and to the highest level (65%). The relationship of quality of care with all method use is also similar. Thus, there is sufficient empirical support for the hypothesis that quality of care is related positively with contraceptive use. In addition to quality, a desire to not have children for two years also has a significant effect on contraceptive use.♣

We test further the relationship between modern contraceptive use and quality in a multivariate model. Table 5 provides results from four logistic regression models that were fitted. The purpose of these different models is to examine if either the magnitude or significance of the critical variable—quality of care—changes with the addition of controls. It is evident that quality of care has a significant effect on contraceptive use from Model 1, where those who received either a medium or high level of care were 31 percent and 64 percent more likely to be using modern contraceptives compared to those who received low levels of care. This relationship holds even after including the other powerful determinant—the intention to not have children in the following two years (Model 3) or a range of additional background variables (Model 4). The magnitude, direction and significance of the effect of quality are maintained across all the models. This is a noteworthy result as analyses done by other researchers have indicated that the effect of quality of care tends to diminish with the addition of socio-economic controls as the ones used in this paper. [16] To further illustrate these results, we calculated the predicted probabilities of use in each category of care for a woman with average characteristics.♦ Such a woman is 55 percent likely to be using contraceptives if she got low levels of care, 62 percent likely at medium levels of care, and 67 percent likely at high levels of care. In other

words, she is more likely to be using contraceptives with each successive higher level of care. In short, this analysis provides support that individuals who receive better quality care do indeed continue with contraception.

Conclusion

The findings that receiving good quality care at the time of initiating contraception has a significant and positive effect on subsequent use are significant for many reasons. First, they shed light on the link between quality of care and contraceptive use that was previously not tested rigorously. They convincingly demonstrate that individuals do factor in the quality of care they are exposed to in clinics in their contraceptive decision-making. Contraceptive decision-making is a complex process where individuals consider a variety of factors including the context of their lives, both familial and individual, as well as the psychological and physical ease with which they can access and use contraceptives. Given that there are a multitude of influences on contraceptive use, it is noteworthy that quality of care emerges as a significant determinant in a multivariate model.

Second, and perhaps more importantly, the findings further support and validate the efforts of those constituencies engaged in improving and sustaining quality as an end in itself. For those that may require reasons beyond humanitarian concerns and equity and need convincing, these analyses provide rationale.

Third, they provide empirical proof that by focusing on the inter-personal contact between providers and clients it is possible to redress some gaps in the family planning program. It has been repeatedly documented that experience of side-effects or fear of potential side-effects are principal reasons for discontinuation; for example, a recent analysis of DHS data from 15 countries indicated that between 7 and 27 percent of women discontinue contraceptive use within the first year for broadly classified quality related reasons, of which side-effects and health concerns are predominant; other quality related reasons included contraceptive failure, desire for a more effective method, lack of access, cost, and inconvenience in using the method. [17] These legitimate fears of users and potential users can be allayed if providers are trained in how to handle such situations; for example, providers can be encouraged to impart adequate and appropriate information; furthermore, they can be provided the appropriate system support to manage side-effects should they occur. Thus, it is possible to alter existing client-provider interactions to those where clients are treated respectfully and courteously, and are provided with adequate options and information. At the same time, providers too are prepared and empowered to be genuine care-givers instead of "motivators". Such approaches will go a long way in boosting clients' confidence in the family planning program and reducing program related contraceptive discontinuation.

The final point is that it pays to focus on the needs of continuing clients than incessantly recruiting new ones, as Jain suggested. [18] Such a focus will benefit not only current users but will ultimately attract news users as the experiences of the former group become known. This strategy will be effective only if it is accompanied by clear and specific service guidelines for serving continuing clients. Further, it needs appropriate evaluation criteria for both service providers and the overall program. Concomitant efforts can also be made to empower users and potential users to demand and negotiate for sustained high quality care.

Table 1: Description of respondents based on Round 1 interviews

Characteristics at Round 1	Round 1 (N=1728)	Lost to follow-up at Round 2 (N=268)	Followed up at Round 2 (N=1460)
Socio Economic			
R's education (mean)	8.6	8.3	8.6
R's husband's education (mean)	8.2	8.1	8.3
R works (%)	16	11*	17*
H works (%)	98	96*	98*
Ownership (mean)	2.0	1.7**	2.0**
Demographic			
Married (%)	100	100	100
Christian (%)	82	81	83
R's age (mean)	31.2	30.0**	31.5**
H's age (mean)	34.9	33.4**	35.1**
Reproductive			
Ever pregnant (%)	100	100	100
# Living kids (mean)	2.96	2.66**	3**
Age of youngest kid (mean years)	1.7	1.3**	1.7**
Reproductive intention - limit (%)	65	58**	67**
Reproductive intention - space (%)	35	42**	33**
Method Accepted			
IUD (%)	14	18	13
Pill (%)	39	44	38
DMPA (%)	36	28**	37**
Condom (%)	10	9	10
Sterilization (%)	--	--	--
Other (%)	1	2	1

Source: First round of SDP panel, Davao, Philippines 1997/98
Note: *significant at <=5%, **significant at <=1%; significant differences between 3rd and 4th columns.

Table 2: Respondents' on selected variables from Round 2 interviews

Characteristics	Round 2 (N=1460)
Currently contracepting (%)	75
IUD (%)	11
Pill (%)	33
DMPA (%)	12
Condom (%)	3
Sterilization (%)	1
Other [1] (%)	16
Current Reproductive intention - limit (%)	75
Current Reproductive intention - space (%)	25
Currently Pregnant (%)	8
Household is economically better (%)	29
R started working (%)	19
R stopped working (%)	6

Note: [1]Includes use of natural family planning, rhythm, withdrawal, breastfeeding and traditional practices

Source: Second round of SDP panel, Davao, Philippines 1999

Table 3: Quality of care received at clinic visit

Quality of Care	Mean score (N = 1460)	%
Needs assessed (0-3)	2.4	
All needs (Score=3)		59
No needs (Score=0)		3
Information received (0-7)	5.1	
All information (Score=7)		30
No information (Score=0)		4
Choice received (0-4)	3.5	
All choice (Score=4)		54
No choice (Score=0)		1
Interpersonal relations (0-7)	6.0	
Good relations (Score=7)		36
Poor relations (Score=0)		1
Continuity mechanism (0-3)	1.5	
Good continuity (Score=3)		11
Poor continuity (Score=0)		7
Total quality (0-24)	18.5	
Low (0-16)		27
Medium (17-20)		38
High (≥21)		36

Source: First round of SDP panel, Davao, Philippines, 1997/98.

Table 4: Cross tabulations of contraceptive use with reproductive intentions and quality

Status at Round 1	Contraceptive use at Round 2	
	Modern contraception (%)	Any method of contraception (%)
R wants to stop childbearing	60	77*
R wants to limit or space ≥ 2 years	60*	76+
Needs assessed		
All needs	61	76
No needs	52	69
Information received		
All information	66*	79*
No information	51	84+
Choice received		
All choice	61+	77*
No choice	n.a.	n.a.
Interpersonal relations		
Good relations	63*	78*
Poor relations	n.a.	n.a.
Continuity mechanism		
Good continuity	63	82*
Poor continuity	56	75
Total quality		
Low (0-16)	53**	72+
Medium (17-20)	59	74
High (≥21)	65**	79*

Note: Differences between the indicator and its complement *significant at 5%, **significant at 1%, +significant at 10%. N.A. Not applicable as no respondents in this category. Medium quality is defined as being ½ the standard deviation from the mean

Source: First & second rounds of SDP panel, Davao, Philippines 1997/98, 1999

Table 5: Logistic Regression of current modern contraceptive use

Variable	Odds Ratio			
	Model 1	Model 2	Model 3	Model 4
Quality				
Low quality (R)	1.0		1.0	1.0
Medium quality	1.31*		1.32*	1.33*
High quality	1.64**		1.64**	1.62**
Reproductive Intention				
R wants to limit or space ≥ 2 years		1.65*	1.64*	1.78*
Demographic				
Number of children				1.05
Age of youngest child				0.99
R's age				0.98
Husband's age				0.98
Socio-Economic				
R's education				0.98
Husband's education				1.02
R works				1.10
Husband works				1.28
Ownership of consumer durables				1.06
- 2 Log likelihood	1959.13	1967.0	1954.04	1904.93
Wald Chi2	12.42**	4.75*	18.12**	51.35**
N	1460	1460	1460	1460

Note: *significant at <=5%, ** significant at <=1%.

Source: First & second rounds of SDP panel, Davao, Philippines 1997/98, 1999

Appendix A1: Definitions of Quality

Quality Elements (Assessing Needs) (D)

- Want a child?
- Timing of next child
- Previous family planning expenses

Information received

- How method works
- How to use
- Side-effects
- What to do if problem
- Warning signs
- Switch methods
- STD protection

Choice received

- Asked method preferred
- Told about at least 1 other method
- No motivation by providers
- Received chosen method

Interpersonal

- Allowed to ask questions
- Questions answered to satisfaction
- Friendly
- Privacy
- Clean
- Satisfied with services
- IEC

Continuity

- Date of next visit
- Alternate source
- Given follow up card

Note: Responses to questions on the services received at the time of adopting contraception

Source: First round of SDP panel, Davao, Philippines 1997/98

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Footnotes

Women were queried on five different aspects—if the field-worker was responsive to her questions; if the field-worker was appreciative of her need for privacy; whether the field-worker was someone the respondent could depend on for help with problems; if the respondent found the field-worker sympathetic to her problems and needs; and if the field worker provided enough information while discussing a topic.

* Readiness refers to the environment which facilitates the delivery of good services such as the availability of infrastructure, equipment, supplies and trained staff. Quality of care, on the other hand, refers to the experience that a user has on interacting with the service.

** A fuller description of the quality of care measure is given in the next section.

+ In the Philippine public health care system, RHUs are typically located in the town center and are generally staffed by a doctor, a nurse and one or more midwives. BHSs are lower level facilities within the catchment area of an RHU, are in less accessible areas, and are staffed by a midwife.

Δ New users as defined in this study are those who had never used any modern contraceptive, or had switched to a new method, or were using the SDP for the first time.

Φ Family planning service providers and their supervisors were trained in information exchange, while supervisors were additionally trained in supportive supervision. More detailed information on the training and its effects are documented in Costello et al., 2001. [14]

Γ The specific items comprising the index are a refrigerator, TV, radio, electric fan, stove, camera, sewing machine, electric iron, sofa, and a Sleeprite mattress.

Ω Opinions vary on which aspects to include, their relative importance, and the extent to which both providers' and clients' perspectives are included.

Ψ Other less common reasons included inability to interview the respondent due to a variety of reasons ranging from her being on vacation to being in jail. Only two respondents refused to be interviewed.

⊥ In terms of the quasi-experimental design noted earlier, the levels of contraceptive use in the experimental and control groups were 74% and 76% respectively with 59% of modern method use in both groups. In other words, the better care received by respondents in the experimental group (as documented in Costello et al., 2001) did not result in higher contraceptive use as compared to the control group. The lack of any statistical difference between the two groups precludes further analysis of the effect of the intervention on contraceptive use.

♣ We included the desire to avoid childbearing in the analysis, as it is one of the more important determinants of contraceptive use.

♦ We have used the following characteristics to depict an 'average' woman in this sample: is 31.5 years old, whose husband is 35.1 years old, has 8.6 years of education, whose husband has 8.3 years of education, both she and husband work, owns 2 items, has 3 children, the youngest of whom is 1.7 years old, and wants to space.